

Japanese stilt-grass

Microstegium vimineum

Fact Sheet

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Common Name: Japanese stilt-grass
New Hampshire Invasive Species Status: Prohibited (Agr 3800)

Latin Name: *Microstegium vimineum*
Native to: Asia



leaves (summer)



Japanese stilt-grass, NH



Stalks (spring/summer)



Nodes



Stilt roots



Rooting system



Young stems red turning green



Forest invasion Photo from bugwood. org



Seed set Photo from EDDMapS.org

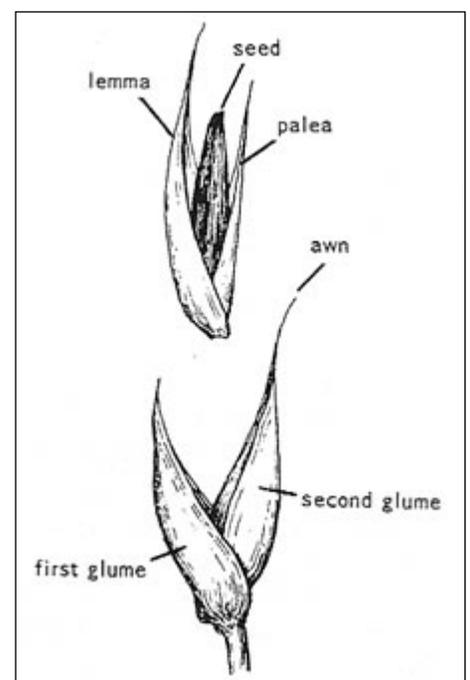
Description: Weak-stemmed annual grass 2-4' tall. **Leaves:** Lanceolate, tapered at both ends, 2-3" long with silvery stripe of reflective hairs along midrib. **Flowers:** Racemes form in August. **Fruit:** Achenes develop in fall. **Zone:** 5-11. **Habitat:** Riverbanks, floodplains, forests and roadsides, adaptable to most soil and light conditions. **Spread:** Seeds spread by water, wildlife & humans. **Comments:** Plants spread quickly into natural areas leading to competition and displacement of native species. **Controls:** Small populations can be hand pulled while large populations can be continuously cut back to prevent flowering and seed production. Herbicide treatments are also effective.

General Considerations - **FOUND AT ONE SITE IN NEW HAMPSHIRE IN 2013 – UNDER ERADICATION**

Microstegium vimineum is tall annual grass originating from Japan. It is thought to have been introduced to North America as a packing material for delicate china. It typically grows to 2' - 6.5' (0.6 - 2 m) tall. Adventitious roots can form at the nodes along the stem when the stems grow prostrate making contact with soil. Both the nodes and stem are glabrous. The alternate light green leaves are 2-3" (5-8 cm) long and up to 5/8" (15 mm) wide. They are lanceolate in shape and taper at both ends. Both upper and lower leaf surfaces are slightly pubescent, except for the silvery mid-rib running down

the center of the blade. The end of the leaf sheath collar is fringed; the ligule is also fringed. (Refer to the generic grass image on the right for the following) The terminal inflorescence is 0.8-2.8" (2-7 cm) in length. It usually only has one or two branches, but can have up to five. Glumes are simple and do not have awns. Each spikelet has two lemmas, which may or may not have awns. Japanese stilt-grass usually flowers in mid-September with fruits developing from late September to early October. In late fall, the foliage turns a pale-greenish-yellow or purplish in color.

Japanese stilt-grass is a C-4 photosynthetic type plant and therefore it is highly adapted to stress and drought. This and other characteristics allow it to form dense monocultures, crowd out native vegetation and proliferate in low light conditions. Once established populations can rapidly increase and occupy areas of several acres in size. Native plants that are heavily browsed upon are easily invaded and displaced by *Microstegium vimineum*. Soil pH tends to increase in stands of *Microstegium vimineum*, while litter and organic soil horizons decrease. In areas where *Microstegium vimineum* is prevalent, nonnative earthworms are found in greater abundance in comparison to nearby areas not infested with this plant. Site disturbance also appears to play a role in the establishment of Japanese stilt-grass. Un-disturbed sites are less prone to invasion than disturbed sites.



Control Options

See the following control guides: [Control of Invasive Species by Numbers](#)

<i>Microstegium vimineum</i> <i>Japanese stilt-grass</i>	
Plant Type	Herbaceous - Annual
Habitat Type	Forests, fields, floodplains, wetlands, roadsides
USDA Hardiness Zone	5-11
Rooting Structure	Fibrous, shallow roots
Environmental Impacts	Raises soil pH. Also forms dense monotypic stands that can dominate entire habitats, including the understory of a forest. These dense stands displace native understory and wetland vegetation.
Wildlife Impacts	
Leaf arrangement	Alternate
NWI Ranking	FAC
Soil Type	Moist rich soils
Soil pH Range	4.6 to 6.3
Light Requirements	Prefers full sun, but grows in moderate to dense shade.
Growing Season	
Growth Rate	
Mature Height	to 2' - 6.5' (0.6 - 2 m) tall
Life Span	1-years
Reproductive Age	<1-year
Flowering Period	Mid-September
Flower Type	Monoecious
Pollination	Self-cross pollinated
Seed Set	September - October
Seed Per Plant	100-1,000 seeds
Scarification Required	No
Cold Stratification	Yes
Seed Longevity	3-5 years
Seed Germination Rate	-100%

Sources

Mehrhoff, L., 2001. Invasive Plant Atlas of New England, Catalog of Species, *Alliaria petiolata*: http://www.eddmaps.org/ipane/ipanespecies/grass/Microstegium_vimineum.htm

USDA Forest Service invasive species website: <http://www.fs.fed.us/database/feis/plants/graminoid/micvim/all.html>

Invasives.org: <http://www.invasive.org/browse/subinfo.cfm?sub=3051>

Go Botany: <https://gobotany.newenglandwild.org/species/microstegium/vimineum/>